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	43	1324	artificial ADJ skin	USPAT;	2002/06/12 13:49		
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United States Patent [19]

Hansbrough et al.

[11] Patent Number:

5,460,939

[45] Date of Patent:

Oct. 24, 1995

[54] TEMPORARY LIVING SKIN REPLACEMENT

[75] Inventors: John F. Hansbrough, Rancho Santa Fe; Gail K. Naughton, El Cajon, both of

[73] Assignee: Advanced Tissue Sciences, Inc., La

Jolla, Calif.

[21] Appl. No.: 200,140

[22] Filed: Feb. 18, 1994

Related U.S. Application Data

[60] Continuation-in-part of Ser. No. 131,361, Oct. 4, 1993, which is a division of Ser. No. 575,518, Aug. 30, 1990, Pat. No. 5,266,480, which is a division of Ser. No. 402,104, Sep. 1, 1989, Pat. No. 5,032,508, which is a continuation-in-part of Ser. No. 242,096, Sep. 8, 1988, Pat. No. 4,963,489, which is a continuation-in-part of Ser. No. 38,110, Apr. 14, 1987, abandoned, which is a continuation-in-part of Ser. No. 36,154, Apr. 3, 1987, Pat. No. 4,721,096, which is a continuation of Ser. No. 853,569, Apr. 18, 1986, abandoned.

[51] Int. Cl.⁶ C12N 11/00; A61F 2/10; C12M 3/00

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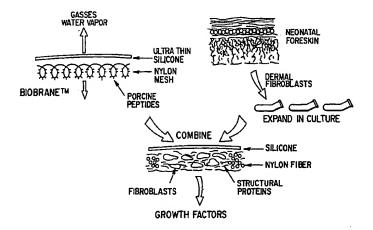
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Primary Examiner—Michael G. Wityshyn Assistant Examiner—Jane Williams Attorney, Agent, or Firm—Pennie & Edmonds

[7] ABSTRACT

The present invention relates to a living skin replacement. In particular, it relates to a biosynthetic dressing material composed of a living stromal tissue prepared from stromal cells such as fibroblasts cultured upon a three-dimensional framework and a transitional covering which acts as an epidermal replacement. Such a living skin replacement provides long-term biologic coverage of full-thickness wound defects. Since human fibroblasts are known to be relatively non-antigenic when transferred to allogeneic hosts, a temporary living skin replacement made up of such cells attached to a transitional covering may replace the use of cadaveric skin allografts for achieving temporary wound closure in cases where the patients lack enough healthy skin for autografts.

12 Claims, 11 Drawing Sheets



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